ENERGY STAR® Application for Certification

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85

ENERGY STAR ® Score[1]

175 Berkeley St. (0001)

Registry Name: 175 Berkeley St. (0001)
Property Type: Office
Gross Floor Area (ft²): 522,349
Built: 1958

For Year Ending: 05/31/2016[2]
Date Application Becomes Ineligible: 09/28/2016

1. The ENERGY STAR Score is based on total source energy. A score of 75 is the minimum to be eligible for the ENERGY STAR.
2. Applications must be submitted to EPA within 120 days of the Year Ending Date. The award is not final until approval is received from EPA.

Please use the *Licensed Professional's Guide to the ENERGY STAR ® for Commercial Buildings* for reference in completing this checklist (http://www.energystar.gov/lpguide).

Property & Contact Information

Property Address
175 Berkeley St. (0001)
175 Berkeley St.
Boston, Massachusetts 02116

Property ID: 1531864
Boston Energy Reporting ID:
0501153000 0501155000

Property Owner
Liberty Mutual Insurance Company
175 Berkeley St
Boston, MA 02116
617 357 9500

Primary Contact
Christopher Davidson
6 Union Street
Natick, MA 01760
508.647.9200
cdavidson@engsolutions.com

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name for Registry:** 175 Berkeley St. (0001)

Is this the official name to be displayed in the Registry of ENERGY STAR Certified Buildings and Plants? ☑ Yes ☐ No

If "No", please specify: _____

2) **Property Type:** Office

Is this an accurate description of the primary use of this property? ☑ Yes ☐ No

3) Location:

175 Berkeley St.
Boston, Massachusetts 02116

Is this correct and complete? ☑ Yes ☐ No

4) Gross Floor Area: 522,349 ft²

Does this represent the entire property? (i.e., no part of the building/property was excluded/subtracted from the total) If "no" please specify what space has been excluded. ☑ Yes ☐ No

5) Average Occupancy: (b) (4)

Is this occupancy accurate for the entire 12 month period being assessed? ☑ Yes ☐ No

6) Number of Buildings: 1

Does this number accurately represent all structures? ☑ Yes ☐ No

Notes:

Indoor Environmental Standards

1) Ventilation for Acceptable Indoor Air Quality

Does this property meet the minimum ventilation rates according to ANSI/ASHRAE Standard 62.1, Ventilation for Acceptable Indoor Air Quality? ☑ Yes ☐ No

2) Acceptable Thermal Environmental Conditions

Does this property meet acceptable thermal environmental conditions according to ANSI/ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy? ☑ Yes ☐ No

3) Adequate Illumination

Does this property meet the minimum illumination levels as recommended by the Illuminating Engineering Society of North America (IESNA) Lighting Handbook? ☑ Yes ☐ No

Notes:

2. Review of Property Use Details

Office: Office Space

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 509,472

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

☑ Yes ☐ No

NOTE: *This use detail was changed during the year ending 05/31/2016. The value above represents a time-weighted average of the values over this timeframe. The following table outlines the history of the changes resulting in the value displayed above:*

Timeframe	Value
06/01/2015 – 08/31/2015	474,267 ft²
09/01/2015 – 05/31/2016	521,293 ft²

2) Weekly Operating Hours: (b) (4)

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the HVAC system is starting up or shutting down, or when property is occupied only by maintenance, security, cleaning staff, or other support personnel. For properties with a schedule that varies during the year, use the schedule most often followed.

☑ Yes ☐ No

3) Number of Workers on Main Shift: (b) (4)

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☑ Yes ☐ No

NOTE: *This use detail was changed during the year ending 05/31/2016. The value above represents a time-weighted average of the values over this timeframe. The following table outlines the history of the changes resulting in the value displayed above:*

Timeframe	Value
06/01/2015 – 08/31/2015	(b) (4)
09/01/2015 – 05/31/2016	

4) Number of Computers: (b) (4)

☑ Yes ☐ No

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

***NOTE:** This use detail was changed during the year ending 05/31/2016. The value above represents a time-weighted average of the values over this timeframe. The following table outlines the history of the changes resulting in the value displayed above:*

Timeframe	Value
06/01/2015 – 08/31/2015	(b) (4)
09/01/2015 – 05/31/2016	

5) Percent That Can Be Heated: (b) (4)

Is this the total percentage of the property that can be heated by mechanical equipment? ☑ Yes ☐ No

6) Percent That Can Be Cooled: (b) (4)

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units. ☑ Yes ☐ No

Notes:

Parking: Parking lots

This Use Detail is used to calculate the 1-100 ENERGY STAR Score

1) Open Parking Lot Size: 0 ft²

Is this the total area that is lit and used for parking vehicles? Open Parking Lot Size refers specifically to open area, which may include small shading covers but does not include any full structures with roofs. Parking lot size may include the area of parking spots, lanes, and driveways. ☑ Yes ☐ No

2) Partially Enclosed Parking Garage Size: 0 ft²

Is this the total area of parking structures that are partially enclosed? This includes parking garages where each level is covered at the top, but the walls are partially or fully open. ☑ Yes ☐ No

3) Completely Enclosed Parking Garage Size: 0 ft²

Is this the total area of parking structures that are completely enclosed on all four sides and have a roof? This includes underground parking or fully enclosed parking on the first few stories of a building. ☑ Yes ☐ No

4) Supplemental Heating: No

☐ Yes ☑ No

Does the parking garage have a heating system to pre-heat ventilation air and/or maintain a minimum temperature during winter months?

Notes:

Restaurant: Cafe

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 0

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

☑ Yes ☐ No

Notes:

Office (b) (4) Office (Renovations)

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 11,821

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher

☑ Yes ☐ No

levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

***NOTE:** This use detail was changed during the year ending 05/31/2016. The value above represents a time-weighted average of the values over this timeframe. The following table outlines the history of the changes resulting in the value displayed above:*

Timeframe	Value
06/01/2015 – 08/31/2015	47,026 ft²
09/01/2015 – 05/31/2016	0 ft²

2) Weekly Operating Hours: (b) (4)

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the HVAC system is starting up or shutting down, or when property is occupied only by maintenance, security, cleaning staff, or other support personnel. For properties with a schedule that varies during the year, use the schedule most often followed.

☑ Yes ☐ No

3) Number of Workers on Main Shift: (b) (4)

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☑ Yes ☐ No

4) Number of Computers: (b) (4)

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☑ Yes ☐ No

5) Percent That Can Be Heated: (b) (4)

Is this the total percentage of the property that can be heated by mechanical equipment?

☑ Yes ☐ No

6) Percent That Can Be Cooled: (b) (4)

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☑ Yes ☐ No

Notes:

Office: Server Room - LL

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 1,056

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

☑ Yes ☐ No

2) Weekly Operating Hours: (b) (4)

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the HVAC system is starting up or shutting down, or when property is occupied only by maintenance, security, cleaning staff, or other support personnel. For properties with a schedule that varies during the year, use the schedule most often followed.

☑ Yes ☐ No

3) Number of Workers on Main Shift: (b) (4)

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☑ Yes ☐ No

4) Number of Computers: (b) (4)

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☑ Yes ☐ No

5) Percent That Can Be Heated: (b) (4)

Is this the total percentage of the property that can be heated by mechanical equipment?

☑ Yes ☐ No

6) Percent That Can Be Cooled: (b) (4)

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☑ Yes ☐ No

Notes:

3. Review of Energy Consumption

Data Overview

Site Energy Use Summary	
Natural Gas (kBtu)	(b) (4)
Electric - Grid (kBtu)	
Total Energy (kBtu)	40,056,984.2
Energy Intensity	
Site (kBtu/ft²)	76.7
Source (kBtu/ft²)	181.8

National Median Comparison	
National Median Site EUI (kBtu/ft²)	124.1
National Median Source EUI (kBtu/ft²)	294.1
% Diff from National Median Source EUI	-38.2%
Emissions (based on site energy use)	
Greenhouse Gas Emissions (Metric Tons CO2e)	3,232.1

Power Generation Plant or Distribution Utility:
NSTAR Co [Eversource Energy]

Note: All values are annualized to a 12-month period. Source Energy includes energy used in generation and transmission to enable an equitable assessment.

Summary of All Associated Meters

The following meters are associated with the property, meaning that they are added together to get the total energy use for the property. Please see additional tables in this checklist for the exact meter consumption values.

Meter Name	Fuel Type	Start Date	End Date	Associated With
Electric (b) (4) (b) (4)	Electric	08/15/2007	In Use	175 Berkeley St. (0001)
Gas (b) (4)	Natural Gas	07/17/2007	In Use	175 Berkeley St. (0001)
Electric (Fire Pump) (b) (4)	Electric	12/14/2012	In Use	175 Berkeley St. (0001)

Total Energy Use

Do the meters shown above account for the total energy use of this property during the reporting period of this application?

☑ Yes ☐ No

Additional Fuels

Do the meters above include all fuel *types* at the property? That is, no additional fuels such as district steam, generator fuel oil have been excluded.

☑ Yes ☐ No

On-Site Solar and Wind Energy

Are all on-site solar and wind installations reported in this list (if present)? All on-site systems must be reported.

☑ Yes ☐ No

Notes:

Electric Meter: Electric (b) (4) kWh (thousand Watt-hours)

Associated With: 175 Berkeley St. (0001)

Start Date	End Date	Usage	Green Power?
05/20/2015	06/21/2015	(b) (4)	No
06/21/2015	07/21/2015		No
07/21/2015	08/19/2015		No
08/19/2015	09/20/2015		No
09/20/2015	10/20/2015		No
10/20/2015	11/19/2015		No
11/19/2015	12/21/2015		No
12/21/2015	01/21/2016		No
01/21/2016	02/21/2016		No
02/21/2016	03/21/2016		No
03/21/2016	04/19/2016		No
04/19/2016	05/19/2016		No
05/19/2016	06/20/2016		No

Total Consumption (kWh (thousand Watt-hours)): (b) (4)

Total Consumption (kBtu (thousand Btu)):

Total Energy Consumption for this Meter

☑ Yes ☐ No

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

Notes:

Natural Gas Meter: Gas (b) (4) (therms)

Associated With: 175 Berkeley St. (0001)

Start Date	End Date	Usage
05/07/2015	06/09/2015	(b) (4)
06/09/2015	07/10/2015	
07/10/2015	08/06/2015	
08/06/2015	09/09/2015	
09/09/2015	10/06/2015	
10/06/2015	11/04/2015	
11/04/2015	12/07/2015	
12/07/2015	01/08/2016	
01/08/2016	02/05/2016	
02/05/2016	03/08/2016	
03/08/2016	04/12/2016	
04/12/2016	05/09/2016	
05/09/2016	06/09/2016	

Total Consumption (therms):

Total Consumption (kBtu (thousand Btu)):

Total Energy Consumption for this Meter

☑ Yes ☐ No

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

Notes:

Electric Meter: Electric (Fire Pump) (b) (4) (kWh (thousand Watt-hours))

Associated With: 175 Berkeley St. (0001)

Start Date	End Date	Usage	Green Power?
05/14/2015	06/14/2015	(b) (4)	No
06/14/2015	07/14/2015		No
07/14/2015	08/14/2015		No
08/14/2015	09/14/2015		No

Start Date	End Date	Usage	Green Power?
09/14/2015	10/14/2015	(b) (4)	No
10/14/2015	11/14/2015		No
11/14/2015	12/14/2015		No
12/14/2015	01/14/2016		No
01/14/2016	02/14/2016		No
02/14/2016	03/14/2016		No
03/14/2016	04/14/2016		No
04/14/2016	05/14/2016		No
05/14/2016	06/14/2016		No

Total Consumption (kWh (thousand Watt-hours)): (b) (4)

Total Consumption (kBtu (thousand Btu)):

Total Energy Consumption for this Meter

☑ Yes ☐ No

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

Notes:

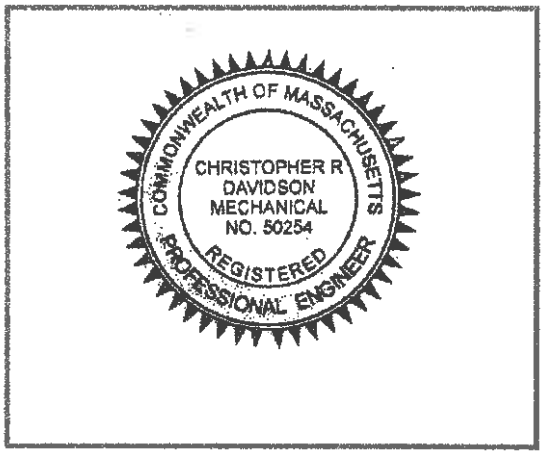
4. Signature & Stamp of Verifying Licensed Professional

CHRISTOPHER DAVIDSON (Name) visited this site on 15 MAR 2016 (Date). Based on the conditions observed at the time of the visit to this property, I verify that the information contained within this application is accurate and in accordance with the Licensed Professional Guide.

Signature: [signature] Date: 9 AUG 2016

Licensed Professional
License: 50254 in MA
License: 10166 in RI

Christopher Davidson
6 Union Street
Natick, MA 01760
508.647.9200
cdavidson@engsolutions.com



Professional Engineer Stamp

NOTE: When applying for the ENERGY STAR, the signature of the Verifying Professional must match the stamp.

5. Signatory Agreement

I hereby nominate the above described property for award of the ENERGY STAR. I have provided a copy of the Licensed Professionals Guide to the ENERGY STAR for Commercial Buildings to our Licensed Professional (LP) for reference. As documented by the above checklist, this property meets the conditions necessary to qualify as ENERGY STAR. I am submitting this application within four months of the Year Ending Date (May 31, 2016) used to generate the application. I will assist EPA, if requested, in verifying any data included in this application. Furthermore, I agree to associate the ENERGY STAR logo only with this property and to adhere to the ENERGY STAR Identity Guidelines.

Signature (must be a direct employee of the building owner/manager): Richard A Barry Jr Date: 8/10/16

Signatory Name: Richard Barry

Property Owner: Liberty Mutual Insurance Company